Distributor Operations Guide

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Version 1.0

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1. Scope, Purpose, & Program Description

1.1 Scope & Purpose

This **Distributor Operations Guide** has been established to communicate the requirements and best practices for handling Martin Lubricants' products. The document has been designed with reference to guidelines set forth by the American Petroleum Institute in API Recommended Practice 1525. The program is intended for marketers who handle bulk lubricants. While marketers handling packaged products exclusively may benefit from portions of this guide, the focus of this document centers on the proper management of bulk products, including packaging the products.

In adopting and following this guide, Martin Lubricants Distributors can expect:

- improved efficiency
- ensured integrity of the products brought to market

This guide has been organized by various aspects of operations to describe the requirements and recommended best practices in lubricants handling, receiving, storing, loading, packaging and delivery.

The following definitions will dictate which sections of the standard are required and which sections are recommended as best practices:

- "must" or "shall" – indicates which sections of the standard are required.
- "should" – indicates which sections are recommended but not mandatory.

1.2. Scheduling the Distributor Survey

For a marketer to handle, deliver, or package Martin Lubricants, a distributor survey is to be performed by an assigned Martin Lubricants representative. An additional survey or analysis may also be scheduled for periodic revalidation or at the marketer's request. The marketer should contact their Sales Representative for scheduling.

1.3. Completing the Distributor Survey

The Survey is comprised of a comprehensive review of:

- review of Martin Lubricants branded bulk products, package and bulk, where applicable
- equipment used at the facility
- product sampling
- chain of custody documentation
- bulk loading and unloading
- packaging
- documentation describing process and controls relative to these activities

Once complete, a report is compiled by the visiting representative. The report will give evaluation to the marketer relative to their compliance versus the requirements and best practices.

1.4. Achieving and maintaining recognition as a Martin Lubricants Bulk & Packaging Distributor

The completed survey may identify areas of weaknesses and deficiencies to the requirements of this guide. Where the marketer aspires to qualify for handling Martin Lubricants products, a plan outlining corrective actions shall be established and submitted for approval. Marketers are expected to implement these corrective actions. Plans shall include completion milestones and should be updated as corrections are completed. Once all are complete, a review will be conducted for adequacy and the distributor can then be qualified.

All distributors handling bulk products must meet the established requirements specified in the Distributor Operations Guide to handle Martin Lubricants products.

In the philosophy of continual improvement expected as a Martin Lubricants Marketer, the review of distributors operations will be conducted every 3 years and the survey analysis updated. These scheduled events are intended to ensure continued conformance to the standard and/or measure progress on completing mutually agreed to goals by Martin and the distributor. Where the marketer is found to have regressed or not in compliance, at minimum, corrective action plans must be developed and executed to bring operations to previous performance levels

1.5. Revisions to the Distributor Operations Guide

The Distributor Operations Guide is periodically reviewed for continued suitability and subject to revision. Notification of upcoming changes to specific elements will be announced and marketer implementation is expected. The Marketer will be evaluated to the standard containing revised requirements at their next scheduled audit.

2. General Facility Requirements

This section of the guide describes requirements and recommended best practices for facilities and equipment used for lubricants handling and storage.

Misrepresentation, alteration, or unauthorized blending of Martin Lubricants products is strictly forbidden. It is critical that the integrity of the product be maintained throughout the delivery from Martin to the distributor and subsequently to end user customers.

2.1. Procedures and Work Instructions

In order to thoroughly communicate and incorporate this guide, written, site-specific work instructions must be implemented which meet the requirements set forth. Employees must be trained on procedures and work instructions. Applicable instructions must be available in the work areas.

This requirement is further described in Section 8 of this manual.

2.2. Bulk Tank/Container Requirements

The marketer should have a dedicated above-ground storage tank for each individual Martin Lubricant's product purchased in bulk.

Requirements and recommended best practices for permanent storage tanks are:

- Tanks must be clearly labeled with the product name, brand and viscosity. The labels must also contain any information required by federal, state and local authorities.
- If tanks have a flat bottom they should have a water draw-off at the lowest possible point within the tank.
- Tanks placed into service after November 2006 **must** have a connection suitable for taking samples of the product stored in the tank. Samples obtained through the transfer lines or the pumps are acceptable provided Flushing of the line is performed or if the transfer system is dedicated to the product in question.
- Tanks placed into service prior to November 2006 **should** have a connection suitable for taking samples of the product stored in the tank. Samples obtained through the transfer lines or the pumps are acceptable provided Flushing of the line is performed or if the transfer system is dedicated to the product in question.
- Tanks should be equipped with a system to volumetrically measure or gauge the product inside. Examples of this system include a site gauge attached to the tank or electronic measurement provided the electronic system is calibrated.
- Tank vent systems should exist on each bulk tank. These systems should prevent the ingression of atmospheric moisture and air borne contaminants equal to and greater than five microns in diameter. If installed, these systems must be maintained with sufficient frequency to sustain effectiveness.

2.2.1. Totes

- Stationary tote container arranged and established for dedicated use shall be generally regarded as bulk tanks. Tank requirements will apply.
- Totes and intermediate bulk containers, or IBCs, must be dedicated by product (brand and viscosity) and must be labeled as such.
- When offloading product to be stored in totes or IBCs from a transport, the IBCs must be in the line of sight of the offloading operation

2.3 Changing Tank Service

Compatibility guidelines must be followed when changing products in tanks and intermediate bulk containers (IBC). Contact Martin Lubricants' Technical Service or your Sales Representative for information on specific requirements.

2.4. Warehouse Storage

Warehouse space must be sufficient for storage of IBCs, drums and pails of Martin Lubricants products. Empty containers intended for packaging Martin Lubricants products must be stored under cover with sufficient protection from dust and moisture. Alternative storage options must be approved by a qualified Martin Lubricants representative.

2.5. Product Transfer Systems

Product transfer systems include lines, pumps, meters and hoses used to transfer product from receipt through delivery. This includes transfer from the bulk transport to the receiving tanks, from one storage location to another, into package containers, into delivery vehicles, and discharge at the customer's location. Martin Lubricants' requirements and recommended best practices regarding our distributors' transfer systems are as follows:

- The facility's internal product transfer systems must be dedicated by product class (see table below) including those used to fill bulk tanks, tank to tank transfers, tank to packaging, and tank to delivery trucks. See Section 4.2 for Martin's Transfer Guidelines.
- Equipment dedicated to a specific product class must be labeled or stenciled as such.
- Scales and/or meters must be calibrated annually and records of calibration must be maintained. This includes the meters on the delivery vehicles. Third-party certification is recommended in order to ensure required accuracy and precision. Loading and packaging systems must contain a strainer of 60-mesh or finer.
- The grouping of these products into a transfer system dedicated by product class **does not** eliminate the requirement for line purging or flushing.
- Lines should be labeled or stenciled with the product name near the valve closest to the tank discharge or receiving point.
- Lines should be equipped with isolated valves close to the pump and should be equipped with pressure relief controls.
- Lines should be constructed with Schedule 40 or better carbon steel or stainless steel.
- Lines and hose storage should be designed so that the lines and hoses drain dry when not in use.
- For safety and cleanliness, drip pans should be used where hoses are coupled.

Note: According to API Recommended Practice 1525 most PVC pipe is manufactured for water service and is incompatible with hydrocarbons, especially low-viscosity products and synthetics.

PRODUCT CLASS

Oil Product Group Recommended Flush Volume (% of common line, meter and pump volume). Please see Section 4 for Flush guidelines.

Motor Oils	100% when changing grades within product family / 200% of when changing from PCMO to HD and vice versa.
Hydraulic Oils	100% when changing grades within product group
Gear Oils	100% when changing grades within product group
ATF	300% when following any dyed product or until no dye color can be seen in flush
Turbine Oils	100% when changing grades
Between Product Groups	300% when changing between product groups

Note: 100% Flush is 0.16gal/ft. for 2 inch pipe, 0.37 gal/ft. for 3 inch pipe and 0.65gal/ft. for 4 inch pipe.
Note: While not recommended, when using common line with multiple product families a flush of 300% of volume should provide for sufficient interface removal.

3. Handling & Storage

3.1. Sampling / Chain of Custody

Chain of custody is the system by which the marketer accounts for the integrity and quantity of products moving through storage, transfer and delivery systems. This system includes the physical collection of samples and related record keeping of movements. Each time product is moved from one storage location to another the chances for contamination increase. Therefore, marketers should obtain samples from each possible contamination point. Specific examples of possible contamination points include storage tanks, transfer systems, packages and tank-wagons. Where suspect or nonconforming product is identified, chain of custody sampling and related documentation allows for reconstruction of the bulk oil handling process for the purpose of identifying cause. Distributors must maintain a Chain of Custody log. Information recorded in the log must correlate to held samples.

Requirements for samples and sample collection:

- The sample must be at least four ounces and placed in a clean, clear container constructed of clear glass or plastic with tight sealing lids or caps.
- The sample must be labeled with information that clearly identifies the date, the supply point, the product name and viscosity grade, the compartment number and the operator's initials.
- Samples must be stored in a controlled environment that prevents contamination or degradation of the product.
- Sample storage should allow for easy access and retrieval of sample retains in the event a product concern arises.
- Samples and logs must be maintained for six months and made available to Martin Lubricants' representatives upon request.

3.2. Sampling points

There are two required (i.e. must) sampling points, and a third sampling point as a recommended "best practice":

1. Samples must be taken upon **receipt** of bulk product shipment from Martin Lubricants.
2. Samples must be taken from initial filled container when packaging bulk product into Totes, drums, pails, etc.
3. Samples should (i.e. best practice) be taken for outbound containers/truck compartments filled for delivery to the customer.

3.2.1. Receipt of Bulk Product

Product integrity of incoming bulk lubricant shipments must be established **prior to** initiating the unloading process. The specific requirements for this step are:

- A sample must be taken from each compartment before unloading begins.
- Samples should be taken from the bottom of the transport trailer manifold.
- Each sample must be compared visually to a reference sample (reference last delivery sample) for color, appearance and particulate material.
- If the sample passes visual comparison, the compartment may be unloaded.

Upon receipt, if product integrity is suspect, contact your Martin Lubricants representative immediately. Suspect product must not be unloaded.

3.2.2. Bulk Deliveries

At the time the product is loaded into the delivery vehicle it has passed from the marketer's storage tank, through transfer system(s) and into the delivery vessel. As such, product integrity of outbound bulk shipments should be verified.

3.2.3 Packaged Bulk Product

At the time bulk product is packaged into Totes, drums, pails, etc., integrity of product must be verified.

- A sample must be taken from the first filled container
- The sample must be at least four ounces and placed in a clean, clear container.
- The marketer must check the sample for color, appearance and ensure there is no visible water or contaminants.
- The sample must be compared visually to the retain sample of the last incoming load for that product.

4. Receiving

All of the following unloading requirements and recommendations apply to tank wagon and railcar deliveries. The unloading requirements also apply whether the product is transported by the marketers' equipment, common carrier contracted by Martin Lubricants or common carrier hired by the marketer.

Due to the increased chance of contamination during transport and unloading operations, precautionary measures to prevent contamination and to establish chain of custody verification are required to ensure maintenance of product integrity.

4.1. Purging / Flushing

4.1.1 Within Product Class

Where lines, pumps, hoses and other devices comprising the facility's transfer system are used for unloading product within a product class, the equipment must be:

- Dedicated by product class, **and**
- Purged sufficiently so as to remove the contents residing in the transfer equipment.

4.1.2 Between Product Class

When receiving products of dissimilar product class the marketer should make every attempt to maintain complete segregation. Where the transfer system is used for a change of service of products of dissimilar product classes, the following apply:

- Where the transport's transfer equipment is used, it must be flushed to 300% so as to remove trace amounts of the previous products.
- Where the facility internal transfer system is used, hoses used for transport connections must be flushed.
- Additionally:
  - Detailed procedures must be available that describe proper flushing requirements and techniques.
  - Employees performing these activities shall be trained.

4.2. Transport Unloading

Requirements and recommended best practices for unloading operations are:

- Unloading must be performed in accordance with applicable safety and environmental regulations.
  - Distributor must properly position the transport to be unloaded, secure brakes and chock the tires.
  - The marketers' personnel and the carrier driver must check delivery documents in order to ensure that products, compartments and quantities are correctly listed.
  - Special Note: If multiple products are included in separate compartments, special attention should be given to avoid possible cross-contamination.
  - A chain of Custody Log must be used to track receipt data. Log data shall include, at minimum, date, supply point, carrier, batch number, sample identification, beginning and ending tank readings, quantity received, and initials of operator performing this work.
  - A sample must be taken from each compartment of the transport before the unloading process begins.
  - Flushing and/ or purging of transfer systems must be completed.
  - The sample should be taken from the bottom unloading connection following the flushing of a sufficient volume from the connection. Flushing is needed to eliminate any small amount of previously loaded product or water which might exist in the connection. The volume of flush fluid will generally vary from about one to five gallons.
  - Prior to unloading the transport, each sample must be compared visually to a reference sample (reference last delivery sample) for color, appearance and particulate material. Prior to unloading the transport, the marketer must gauge the receiving tank to verify sufficient room exists to accept the quantity of product to be received.
  - Martin's Material Transfer Rules **must** be followed at all times:

    1. Normal position of valves is the closed position, unless visually flagged.
    2. Never fill over the designated normal fill height/level without written approval.
    3. Address alarms immediately.
    4. Never bypass alarms.
    5. Double check that the aligned vessel is the correct vessel for the material.
    6. Double check the valve line up prior to transfer.
    7. Always confirm that product will fit into the designated vessel.
    8. Always confirm the material is flowing into the designated vessel.
    9. Always provide sample from receiving vessel after transfer/blend is complete.
    10. Always use your stop work authority to enforce these transfer rules.

  - The quantity of the product to be unloaded should not exceed 90% of the tank capacity.
  - The carriers pump, piping and unloading hoses should be inspected to ensure they are clean and free of contaminates.
  - The transport compartments must be vented during the unloading process to prevent the compartment from imploding.
  - **The marketer's operator must be present during the entire unloading process.**
  - When unloading multiple products, the marketer should begin with the product with the lightest viscosity.
  - Drip pans should be used to collect or contain any spills.
  - After pumping process is started the marketer must check for any leaks in the system. If any leaks are noted, discontinue pumping and repair the leak.

Post Unloading Procedures:

- After the trailer is empty, the marketer must close the transport bottom valve, walk the hose to the suction side of the pump, close the pump suction valve and turn the pump off.
- Next the operator should close all remaining valves beginning with the storage tank and ending with the pump discharge valve.
- The operator should bleed any pressure from the lines before disconnecting the suction hose. The connections should be released slowly to avoid possible injury due to pressure build up.
- All hoses should be drained dry and capped before returning to the storage areas or stored in a way that will allow them to drain while stored.
- Marketer should verify the received quantity of product corresponds with the quantity posted on the bill of lading.

5. Delivery

Requirements are established for the process from loading a distributor's bulk delivery equipment to product transfers at the customer's storage tank, and include 1) delivery truck considerations, 2) loading delivery truck and 3) delivery. **Delivery** vehicle includes bulk tank-wagons, box trucks and flatbed trucks with delivery systems from Totes or any other means of delivering bulk lubricants through an intermediate storage and transfer system.

5.1. Delivery Vehicles / Loading

- **During Loading, the operator should watch for unusual high or low pressures in the transfer system. These could indicate a closed valve or plugged strainer.**
- Products containing active sulfur contents should be handled by a segregated system. (i.e. Gear Oils)
- Delivery vehicles should have pumping systems dedicated for each product class to be delivered.
  1. Engine Oils
  2. Gear Oils
  3. Automatic Transmission Fluids
  4. Hydraulic Oils
  5. Zinc-Free Oils
- Special attention should be given to avoid possible cross-contamination between product classes.
- Product remaining in a compartment at the end of the delivery run should be pumped back into the proper storage tank or into a flush oil container.
- **Optional: On- board** filtration should be used for lubricant delivered. This best practice provides assurance that the delivered product is clean from contaminant at time of delivery.
- After the product has been loaded, a sample should be taken from each compartment or tote.
- The marketer must check the sample for color, appearance and ensure there is no visible water or contaminants.
- The sample must be compared visually to the retain sample of the last incoming load for that product.
- The delivery vehicle compartments, piping, pumps, meters and hoses should be inspected to ensure they are clean and free of contaminants.
- Compartments should be empty, clean and dry.
- The last product in the compartment must be checked for compatibility of like product class against the product to be loaded. Purge or flush compartments as appropriate.
- Equipment to be used for loading should be inspected to ensure that it is clean and free of contaminates. Verify that the last product pumped is a compatible class with the product to be loaded. Purge or flush the transfer system in accordance with the established Compatibility Guide.
- If loading from the top, the marketer shall verify that all discharge valves are properly closed.
- Loading should be performed in accordance with applicable safety and environmental regulations.
- The operator should verify that the product to be loaded corresponds to the shipping documents or loading instructions.
- The operator should remain with the delivery vehicle and pumping systems during the entire loading process.
- Metering should be used to monitor the process to minimize potential for overfilling.

- Before transferring product to the compartments, the marketer should double check to ensure the appropriate lines and valves are set to direct the product to the desired delivery vehicle compartment.
- Once pumping has begun, the marketer should inspect the system for leaks. If any leaks are noted, discontinue pumping and repair the leak or notify the customer.
- If loading multiple products, special attention should be given to avoid possible cross-contamination.
- Lines, pumps, meters and hoses must be sufficiently purged or flushed.

If Totes (IBCs) are used as the delivery vessel, the following requirements apply:

- Totes (IBCs) should be clearly labeled to identify the product they service.
- Prior to filling, the marketer should visually inspect the Tote to ensure it is clean and free of contaminants.
- Only IBCs which are dedicated to a single product service and which have remained in the custody of the marketer should be refilled without being cleaned. Dedicated IBCs should be visually inspected prior to refilling.
- Where there is a change of product service, IBCs must be appropriate cleaned between fills.
- To prevent product contamination, the top of the IBCs must be wiped clean prior to refilling.

5.2. Customer Deliveries

The following recommended practices apply to the physical delivery of bulk lubricants:

- Prior to the first bulk delivery, the delivery vehicle driver should ensure that the pumps and hose reels on the delivery vehicle have been properly flushed and are ready for the first stop on the delivery route.
- Scheduling product transfers by product class will minimize the frequency of occurrence product transitions required during delivery and should always be a consideration in the facility operations.
- For each delivery route, the pumping systems on the delivery vehicle should be dedicated to the product class they serve.
- After the product has been loaded, a sample must be taken from each compartment or IBC.
- At each delivery point, the marketer should inspect the customer's storage tank for any potential problems.
- The marketer should check the tank labeling and verify that the product in the tank corresponds with the product to be delivered.
- If possible, the marketer should visually check the product in the tank to ensure that there are no visible contaminates.
- The driver should not leave the pump and hoses unattended while filling the customer's storage tank. If the driver is delivering into a storage vessel that cannot be seen from the truck, the driver should have a second person watch the process at the delivery vessel to avoid overfilling. Driver and second person watching should be able to continuously communicate until complete.
- Once the pumping operation has started, the driver should inspect the pumping system for leaks. If any leaks are noted, discontinue pumping and repair the leak.
- After the delivery is complete, the driver should clean the top of the storage tank and any other drips or spills.
- Proper flushing /purging procedures should be followed when switching between different products.
- The delivery drivers should understand the correct line volume of the piping, pump, meter and hose reel for each pumping system on the delivery vehicle.
- Marketer should have printed meter tickets for all bulk deliveries of lubricants made to customers.

6. Packaging Bulk Lubricants

As with bulk delivery to customers, product quality of packaged products that are filled by the marketer must be established prior to delivery and approved by a Martin representative. It is easily reasoned that the smaller the volume, the greater the potential for compromising the integrity of the package. Lack of attention toward empty container storage and handling can contribute to contamination problems.

Adhering to the required and recommended best practices will ensure a representative sample of the product packaged. The requirements for chain of custody proof for this operation are:

- For each package run, marketers must retain a sample.
- The sample must be taken from the first and last container filled.
- The sample information must be recorded in a chain of custody log. An example of a log to track this information titled Packaging Log is available in the Appendices of this standard.

6.1. Equipment Requirements

- In order to maintain product integrity, the packaging area must be under cover and suitable to prevent contamination from moisture, dust or other forms of contamination.
- Equipment should be inside and in close proximity to the pumps and meters that will be used for packaging.
- Appropriate packaging equipment should be available for use:
    1. An explosion proof drop light that can be lowered into a drum for inspecting containers
    2. A bung wrench for drum caps
- Maintaining the chain of custody log. An example of a chain of custody log is provided in the Appendices of this standard under the heading Packaging Log.

6.2. Containers

Martin Lubricants can authorize marketers who meet the minimum requirements to package certain bulk lubricants into Totes (IBCs), 55-gallon drums, 16-gallon drums and 5 gallon pails. **These container sizes are the only sizes allowed for the packaging of Martin Lubricants' products.**

- Fill volumes must be consistent with those available directly from Martin Lubricants for the specific product & package combination.
- All drums must have bung seals applied before shipping.
- All empty and full containers must be stored in accordance with section 3.0 Handling & Storage, in this standard.
- All new and reconditioned drums used for packaging Martin Lubricants products must be inspected before filling and labeling. Drum inspection records should be maintained. Records should be retained for a period of six months. An example of such a log is available in the Appendices of this standard under the heading Reconditioned Drum Inspection.
- Prior to filling, each drum must be inspected to verify the container is free from rust, liquid, or other foreign residue.

6.3. Filling

The process requirements and recommended best practices for filling containers are identified below:

- Meters or scales must be used to measure product sold to customers. The meters and/or scales must be certified and checked for accuracy annually and, if needed, calibrated. Third- party certification is recommended in order to ensure required accuracy and precision. Records of these checks and calibrations must be kept on file and made available for review.
- The fill systems used for packaging must be dedicated by product class at a minimum.
- Best practice is to have all fill systems dedicated by product.
- If the marketer is utilizing a fill system dedicated by product class, the common areas within the class system must be purged between products.

6.4. Labeling

Martin Lubricants approved labels must be used when packaging Martin branded products. Labels must clearly identify the marketer's name & location in the "Packaged by" section of the label.

For purposes of identification, for each packaging run or lot, labels applied to marketer packaged products must contain a unique batch number and this batch number recorded on the chain of custody log. The marketer should use a code that is traceable through the Julian calendar. A batch number referencing the Julian calendar would contain the year the product was packaged, the operator that packaged the product and the day of the year that the product was packaged.

7. Documentation Requirements

Distributors must document their handling processes. This documentation consists of procedures or work instructions describing the processes used and record keeping systems documenting the processes performed.

7.1. Policies, Procedures, Instructions & Forms

Procedures document the manner that activities are performed. Well written procedures should clearly point out *who, what, when, where, and how*. Site-specific procedures must be implemented that document:

- Health, safety and environmental policies and procedures
- Handling and storage policies and procedures
- Receiving policies and procedures
- Chain of custody policies and procedures
- Delivery policies and procedures
- Packaging policies and procedures

Examples of information to be included in each of these categories are provided below.

Health, safety and environmental: Should include applicable policies and procedures required internally or by governmental agencies such as SPCC plans, OSHA requirements, OPA contingency plans, etc.

Handling and storage: Should include policies and procedures for storage of lubricants, dedication of equipment, flush oil storage, a schematic drawing of the tank farm and warehouse layout, calibration documentation, etc.

Receiving: Should include work instructions for the requirements of section 4.0 Receiving, chain of custody requirements, etc.

Chain of custody: Should include policies for chain of custody documentation, work instructions for the activities required in section 3.0 Chain of Custody, etc.

Delivery: Should include policies for chain of custody documentation, work instructions for the activities required in section 5.0 Delivery, etc.

Packaging: Should include policies for chain of custody documentation, work instructions for the activities required in section 6.0 Packaging, etc.

7.2. Record Keeping

Good records clearly documents the work accomplished. For some activities, logs will be required to document actions taken regarding the handling of Martin Lubricants product. The activities and the type of information required or recommended are:

- Receiving: A log must be maintained to document the receipt of bulk lubricants products. The information that should be documented in this log includes the date the product was received, the supply point and/or carrier, the batch number, the condition/appearance of the sample, beginning and ending tank readings, the quantity received and the initials of the operator.
- Delivery: A log is recommended to document the delivery of bulk lubricants products. The information that should be documented in this log includes the date delivered, vehicle/IBC delivered from, sample condition/appearance, customer delivered to, quantity delivered and driver's initials.
- Packaging: A log is required to document the packaging of bulk lubricants products. The information that should be documented in this log includes the date, batch number, container size, quantity packaged, last received bill of lading, sample condition/appearance and operator's initials.
- Note: Examples of logs and forms are presented in the various Appendices of this standard. These can provide guidance for required data and information.

8. Special Processes

8.1. Blending

Note: Marketers are prohibited from product blending without written approval from Martin Lubricants. No exceptions.

8.2. Railroad Engine Oil Handling

Under special circumstances some marketers may be authorized by Martin Lubricants to handle, store and deliver bulk railroad engine oil. Handling & delivery of railroad engine oil will be authorized only when Martin Lubricants, determines that 1) a suitable business case exists and 2) the marketer has the experience and equipment necessary to ensure that the product will meet the appropriate specifications. Common transfer and/or pumping systems will not be permitted.

Note: Marketers are prohibited from packaging railroad engine oil under any circumstances.

8.2.1 Requirements

- Marketers must have on file a Railroad Engine Oil Waiver for each product to be delivered. A Railroad Engine Oil Waiver must be signed and approved by the appropriate Product or Technical Manager.
- Chain of Custody Log sheets must be maintained. Log sheets must be retained for 12 months.
- Note: Common transfer and/or pumping systems will not be permitted.
- Marketers must furnish and maintain site specific written instructions. These instructions must provide sufficient detail describing in full all aspects receiving, handling & storage and delivery process.
- Plans for preparing storage and transfer equipment for initial receipt of product must be submitted to and approved by Martin Lubricants
- ALL products handling equipment (tanks, compartments, pumps, meters, lines and hoses must be dedicated by product.
- Totes used for handling, storage or delivery must be dedicated by product and permanently labeled.
- Delivery must be from dedicated equipment (dedicated compartment or dedicated totes and dedicated pump).
- Absolutely no repackaging into or from any package (keg, drum, pail) is allowed.
- Samples must be taken from each delivery and retained for a minimum of 12 months.
- Records of deliveries must be maintained in a chain of custody log. The log shall be maintained for a minimum of 12 months
- Marketer shall provide product samples to Martin Lubricants upon request.

9.0 Appendices

9.1 Line Volume Calculation

System Calculation

NOMINAL PIPE DIAM. INCHES	ACTUAL INSIDE DIAM. INCHES	ACUTAL OUTSIDE DIAM. INCHES	GALLONS IN ONE LINEAL FOOT
1/8	.269	.405	.0030
1/4	.364	.540	.0054
3/8	.493	.675	.0099
1/2	.622	.840	.0158
3/4	.824	1.050	.0277
1	1.049	1.315	.0449
1 ¼	1.380	1.660	.0777
1 ½	1.610	1.900	.1058
2	2.067	2.375	.1743
2 ½	2.469	2.875	.2487
3	3.068	3.500	.3840
3 ½	3.548	4.000	.5136
4	4.026	4.500	.6613
4 ½	4.560	5.000	.8284
5	5.047	5.563	1.0393
6	6.065	6.625	1.5008
8	7.981	8.625	2.5988
10	10.020	10.750	4.0963

9.2 Tank Reading Log

Tank should be monitored for H_2O if product has not turned within 90 days.

Tank Number: _____

Product Name: _____

Date	Tank Num.	Product Description	Tank Cap.	Sampled		Total Gals.	On Order
				Yes	No		

9.3 Tote / IBC Tracking Log

Tote Number:_____ Customer:_____

Gallon Capacity:_____ Location:_____

Date Delivered:_____ Product:_____

Date Rec.	Inspected By	Date Filled	Retain Sample	Date Ret.	Comment

Tote Condition:

9.4 Reconditioned Drum Inspection

Select ten drums at random from the lot of incoming reconditioned drums and perform an inspection. Use a drop light to inspect the interior of a drum for defects. Identify any defects by checking the appropriate box. If four or more are defective, the lot is to be rejected. This inspection allows for zero "Major" defects per drum. No more than one "Minor" defects per drum and no more than three "Observation" defects per drum**.**

Supplier: Date:_____Operator: _____

INSPECTION LIST	Randomly Select 10 Metal Drums From Lot									
	1	2	3	4	5	6	7	8	9	10
1. Major Defects	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
• Paint Loose/Flaking										
• Exterior Rust										
• Interior Rust										
• Interior Moisture										
• Creased Chime										
• Previously Lined										
2. Minor Defects	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
• Color / Black										
• Paint Glossy										
• Dents										
• Height										
3. Observations	◊	◊	◊	◊	◊	◊	◊	◊	◊	◊
• Dings										
• Dull Paint										
• Stencil / I.D. Removed										
TOTAL DEFECTS										

9.5 Bulk Receiving Log

Tank Number:_____Product Name: _____

Date	Supply Point and / or Carrier	Batch Num.	Sample	Tank Readings		Quantity Received	Oper.
				Beg.	Ending		

9.6 Packaging Log

A SAMPLE FROM EACH PACKAGE RUN SHOULD BE RETAINED.

Product Name: _____

Date	Batch Number	Cont. Size	Quantity Packaged	Last Rec. Bill of Lading	Sample Retained	Operator

9.7 Delivery Log

A SAMPLE FROM EACH OUTBOUND DELIVERY VESSEL MUST BE RETAINED.

Product Name: _____

Date	Truck Number	Comp. or IBC Number	Quantity Loaded	Last Rec. Bill of Lading	Sample Retained	Operator or Driver

9.8 Meter Inspection Log

Calibrate Meters Annually						
				Within Spec		
Date	Meter Num.	Locat.	Product	Yes	No	Reason for Repair